



## **Track n. 10 - Traditional and Future e-Government: from e-Government 1.0 to e-Government 3.0**

Electronic Government (or e-Government) represents a major attempt to exploit the continuously emerging and improving digital technologies in order to support, enhance and transform the wide range of activities that government undertakes in order to address the increasing problems and needs of modern societies. This evolution of digital technologies on one hand, and also of the problems and needs of societies, led to an impressive evolution of the e-Government domain, and the emergence of some discrete generations of it. Its first generation, the 'traditional e-Government', referred to also as 'e-Government 1.0', focused initially on the exploitation of ICT for supporting and transforming the complex internal processes of government agencies, aiming to improve their internal efficiency; then, with the advent and wide penetration of the Internet, it focuses on providing transactional services to citizens and firms through various electronic channels, such as the Internet and latter the mobile. Subsequently, the advent and wide penetration of the social media, in combination with the wide propagation of the open and participative government ideas, led to the emergence of second generation of e-Government, referred to as 'eGovernment 2.0'; It focused on the use of Internet, and especially the social media, for promoting transparency, citizens' participation as well as collaboration. In the last years a new generation of e-Government is emerging, referred to as 'e-Government 3.0'. Its main directions are: i) the smart utilization in government of some new disruptive ICTs that have recently emerged, such as big data, Internet of Things (IoT), artificial intelligence, intelligent bots and agents, business analytics, data mining, distributed ledger technologies and blockchain, gamification, and computer-based societal simulation; and ii) the use of digital technologies for supporting evidence-based decision and policy making, in order to address the complex and serious challenges and problems of modern societies, leveraging both the 'traditional' ICT and the above disruptive ICTs, especially through the exploitation of big data, advanced modelling, data analytics and societal simulation. It should be noted that there is extensive activity concerning all these three e-Government generations, both in government practice (with e-Government 1.0 absorbing most of the digital activities and investments of government agencies), and in academic research (with e-Government 2.0 and 3.0 attracting most of the research interest and activity). The increasing exploitation of and investment in digital technologies by government, necessitates extensive research in this area, on one hand for improving efficiency, effectiveness and innovativeness with respect to the first two e-Government generations (1.0 and 2.0), and on the other hand for developing this novel e-Government 3.0 generation, which seems quite promising, with high potential for generating important and highly beneficial government innovation and huge public value.

Main topics of interest include, but are not limited to:

- Advances and evolution in e-Government 1.0 and 2.0 leading to higher levels of maturity, efficiency and effectiveness
- Internal exploitation and management of digital technologies in government agencies.
- Methods and technologies leading to enhanced digital public services
- Technical, semantic, organizational, managerial and legal/policy aspects of interoperability
- Semantic ontologies, web services and modelling for governmental infrastructures
- Architectural standards, principles and frameworks
- Advanced use of social media in government for enhancing transparency, citizens' participation as well as collaboration, and for promoting open and collaborative governance.
- Exploitation of disruptive ICTs in government (such as big data, Internet of Things (IoT), artificial intelligence, intelligent bots and agents, analytics, data mining, distributed ledger technologies and block-chain, gamification, simulation, etc).
- Policy informatics: multi-disciplinary policy modelling, simulation and analytics approaches for policy impact assessment and support of evidence-based decision making and public policy formulation;



- Advanced crowd-sourcing/citizen-sourcing and public value co-creation methods and practices, aiming at the mobilization and exploitation of societal resources from a wide range of stakeholders, for the design and implementation of effective public policies and the provision of valuable public services, and also new roles of government 'as a platform';
- Big & Open Linked Data (BOLD)
- Extracting value from big data
- Data value, data value chains, and data governance
- Data quality, privacy, trust, ownership and security
- Internet of Things (IoT) for data-driven government
- Automated decision-making using Data Mining, Machine Learning and Artificial Intelligence algorithms
- Ethical considerations in the application of Artificial Intelligence in Government
- Data Policy analytics, processing, and intelligence and visualization
- Co-creation using data and citizen engagement
- Data-driven public sector innovations and applications
- Data platforms, interoperability, information sharing and public business models
- New epistemological approaches and theoretical foundations for the development of e-Government 3.0 (ontological resources, definitions, neighbouring scientific domains, taxonomies, research topics, future roadmaps and foresights);
- Challenges that the development of Government 3.0 poses: new government agencies skills and capacities required, as well as cultural changes, resistances to change, barriers, critical success factors, and also negative aspects and risks of Government 3.0.

#### References

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Janowski, T. (2015). "Digital government evolution: From transformation to contextualization". *Government Information Quarterly*, 32(3), pp. 221-236.

Lachana, Z., Alexopoulos, C., Loukis, E., and Charalabidis, Y. (2018). "Identifying the Different Generations of e-Government – An Analysis Framework" 12th Mediterranean Conference on Information Systems (MCIS 2018), September 28 - 30, 2018, Corfu, Greece.

Gil-Garcia, J. R., Pardo, T., and Luna-Reyes, L. F. (2018). "Policy Analytics: Definitions, Components, Methods, and Illustrative Examples". In: *Policy Analytics, Modeling, and Informatics – Innovative Tools for Solving Complex Social Problems*. Ed. by J. R. Gil-Garcia, T. Pardo, L. F. Luna-Reyes. Switzerland: Springer International Publishing AG – Public Administration and Information Technology, pp. 1 – 16.

Androutsopoulou, A., Karacapilidis, N., Loukis, E., Charalabidis, Y., (2019). "Transforming the communication between citizens and government through AI-guided chatbots". *Government Information Quarterly* (in-press).

#### Type of contributions invited:

This Track aims to attract high quality research or research – in progress papers (qualitative research, quantitative research, case studies, design approaches, best practices, literature reviews, etc.) concerning both evolutions and advances of e-Government 1.0 and 2.0, and also the development and evolution of e-Government 3.0.

#### Track Co-Chairs

Name – Surname	Euripidis Loukis
Title	Professor



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Digital transformation and social innovation in the current era:  
organizing, managing and controlling



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Short bio	Dr Euripidis Loukis is Professor of Information Systems and Decision Support Systems in the Department of Information and Communication Systems Engineering of the University of Aegean. He has served as Information Systems Advisor at the Ministry to the Presidency of the Government of Greece, as well as National Representative of Greece in the Programs 'Telematics' and 'Interchange of Data between Administrations' of the European Union. He has conducted extensive research in the areas of e-government, e-participation, ICT adoption, business value and impact, and decision support systems, and has participated in numerous European and national research programs in these areas. Dr Euripidis Loukis is the author of more than 200 papers in international journals and conferences in the above areas. His papers have been honored with prestigious international awards, such as the International Award of the American Society of Mechanical Engineers (ASME) in the area of Controls and Diagnostics, the Best Paper Award of the European and Mediterranean Conference on Information Systems, and the Most Innovative Research Contribution award of the IFIP EGOV-EPART Conference.
Name – Surname	Yannis Charalabidis
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Short bio	Dr Yannis Charalabidis is Associate Professor in the Department of Information and Communication Systems Engineering of the University of Aegean. In parallel, he serves as Director of the Innovation and Entrepreneurship Unit of the University, designing and managing youth entrepreneurship activities. He has more than 20 years of experience in designing, implementing, managing and applying complex information systems as project manager, in Greece and Europe, designing and leading several FP5, FP6, FP7 and HORIZON projects. He has been employed for 8 years as an Executive Director in SingularLogic Group, leading software development and company expansion in Greece, Eastern Europe, India and the US. He has published 10 books and more than 200 papers in international journals and conferences, while actively participating in international standardization committees and scientific bodies. He has been Best Paper Award winner in the International IFIP e-Government Conference (2008, 2012, 2016), 1st prize winner in OMG/Business Process Modelling contest (2009) and 2nd prize winner in the European eGovernment Awards with the ERMIS project (2009).
Name – Surname	Charalampos Alexopoulos
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Short bio	Dr Charalampos Alexopoulos is Research Associate – Postdoc Researcher in the Department of Information and Communication Systems Engineering of the University of Aegean. He has extensive experience in working on European and National funded research projects, and also has published extensively at several scientific conferences and journals, in the areas of open data infrastructures, IS evaluation, interoperability and digital government. In parallel, he is responsible for the International Relations of the Innovation and Entrepreneurship Unit of the University. Charalampos has served as a reviewer in several journals and conferences, and as a Programme and Organization Committee Member of the annual Samos



Summit on ICT-enabled Governance and also on summer schools organized by the University of Aegean in the area of digital government. He is a computer science graduate from the University of Peloponnese with an MSc in Management Information Systems from the University of the Aegean. Furthermore, he holds a PhD from the from the University of the Aegean on “Open Government Data Infrastructures: Research Challenges, Artefacts Design and Evaluation”.

### Track programme committee members

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### Submission

Submissions will be evaluated through a standard blind review process. Track chairs will ensure anonymity of the review process.

Authors are highly encouraged to seek guidance from Track Chairs prior submitting the paper. We highly encourage authors to formalize this process by sending an abstract to the Track Chairs to receive feedback and guidance. Formal submission must specify the track that they are intended for. The page limit for contributions submitted in English is equal to 12 pages (maximum). Formatting rules (LNCS Springer format) are available at this link:

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Deadline for encouraged abstract submission: April 21, 2019

**Deadline for full paper submission: May 20, 2019**